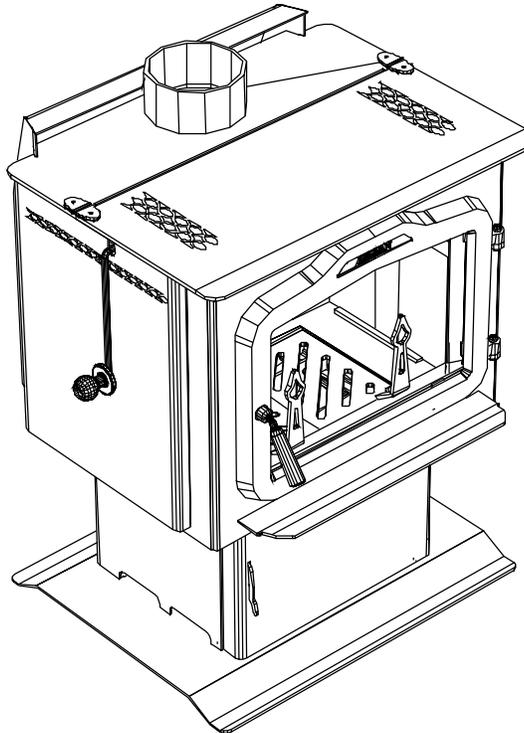


# Installation & Operating Manual

## The Harman Exception Wood Stove

(Model TL200)



R7

### SAFETY NOTICE

PLEASE READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW ROOM HEATER. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.

FOR USE IN THE U.S. AND CANADA SUITABLE FOR INSTALLATION IN MOBILE HOMES

IF THIS HARMAN EXCEPTION MODEL TL200 STOVE IS NOT PROPERLY INSTALLED, A HOUSEFIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW INSTALLATION DIRECTIONS.

CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

CONTACT YOUR LOCAL AUTHORITY (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ETC.) TO DETERMINE THE NEED FOR A PERMIT.

CETTE GUIDE D'UTILISATION EST DISPONIBLE EN FRANCAIS. CHEZ VOTRE CONCESSIONNAIRE DE HARMAN STOVE COMPANY.

**SAVE THESE INSTRUCTIONS.**

# Introduction

Thank you for purchasing the Harman Exception Wood Stove. With the Exception you will notice even heat throughout your home and long burn times. This is possible because of our exclusive Harman Afterburner Combustion System which takes unburned gases into the afterburner chamber where they are mixed with air and burned at very high temperatures.

The Harman Exception was designed to make burning wood easier by adding a top load door which allows more wood to fit into the large firebox. The Exception's smoke free design draws smoke down through the stove, not into your room. The top load door also comes in handy when cooking on the optional cooking grill. Simply place the grill in the top load opening and grill great tasting meats and vegetables on the Harman Exception.

The Harman Exception exceeds safety standards. Warnock Hersey has tested and approved the Exception under the following standards: UL 1482, CAN/ULC-S627, ANSI/UL 737 and EPA (Phase II). The Exception is also approved for use in mobile homes.

We strongly recommend this unit be installed by a Harman trained dealer. If you choose to install it yourself, please consult your Harman dealer for venting and positioning advice.

Be aware of your local building codes, permits and insurance that may be required in your area.

This Harman Stove is covered by the Harman Gold Warranty, the best warranty offered in the hearth industry. Our warranty shows our confidence in the design and manufacturing of our stoves. See page 23 for warranty information.

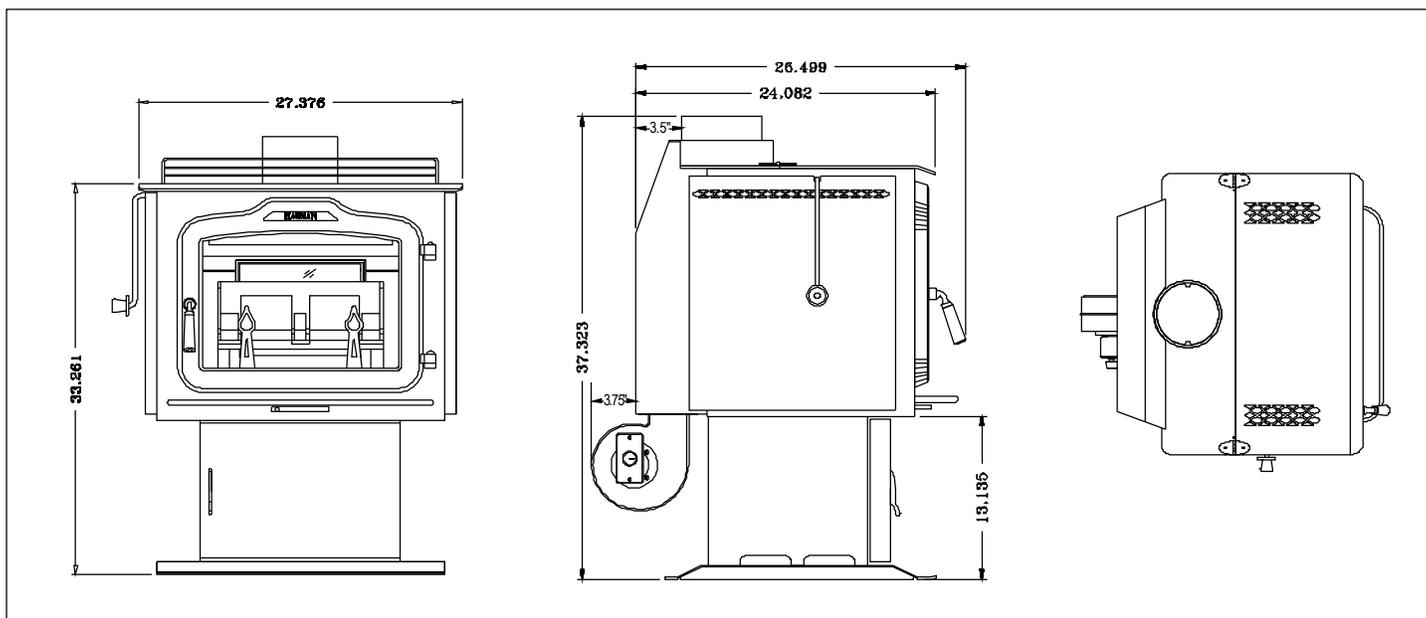
The Harman TL200 meets the U.S. Environmental Protection Agency's emission limits for wood heaters sold after July 1, 1990.

**SAFETY NOTICE: IF THIS HARMAN EXCEPTION MODEL TL200 WOOD STOVE IS NOT PROPERLY INSTALLED. A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.**

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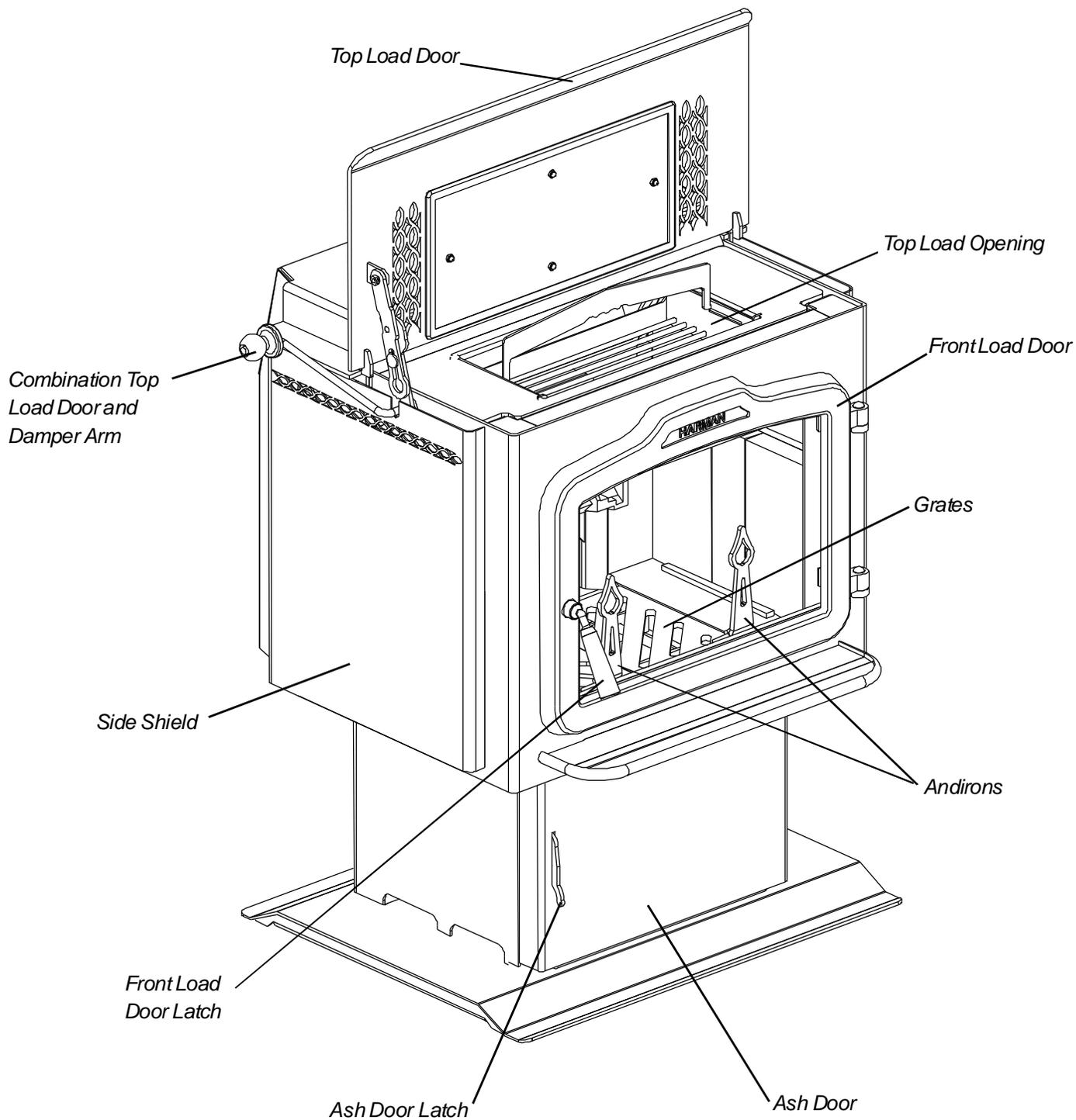
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# Specifications



Weight	440 lbs
Flue Size	6 inch
Log Length Recommended	18" with 20" Max
Heating Capacity	1500 to 2800 sq. ft.
Average Emissions	4.4 Grams Per Hr.
Emissions on Low	2.25 Grams Per Hr.
Blower Size (optional)	105 cfm variable speed
Outside Air size	3 inch

# Specifications



# Operation

## General Considerations

### Draft

Before you install and operate your Exception wood stove, please read the entire contents of this manual. Pay particular attention to the explanation of draft and its effect on stove performance in the venting section. By following the installation and operating guidelines, you will ensure proper draft and gain maximum efficiency and enjoyment from your stove.

### Fuel

Your Exception burns wood very efficiently. Here are some guidelines concerning firewood that will help you obtain the best performance.

Select hardwoods if possible, as they are heavier and contain more heating capacity (BTU's) per load than do softwoods. Wood should be split and stored under cover for "seasoning" - a year is recommended. Your stove is not an incinerator - do not burn garbage, painted or treated wood, plastic, or other debris.

Keep the area around the stove free from clutter. Keep all combustibles, including fuel, beyond the code-required clearance distance (48" or 1215 mm in the U.S., 1525 mm or 60" in Canada). Never store fuel in front of the stove where it could interfere with door operation, safe loading, and ash removal.

### WARNINGS

- **For use with solid wood fuel only.**
- **Do not burn garbage or flammable fluids such as gasoline, naphtha, or engine oil.**
- **Do not burn any fuel other than wood, such as charcoal, which can cause increased carbon monoxide production or overfiring. Never use highly volatile substances in your stove, such as gasoline, which could cause an explosion.**

### The Stove

#### Doors

Your stove has a large glass-paneled door for loading and fire viewing, a separate smaller door for removing ashes and a top loading door. To open the glass door, turn the handle clockwise and pull out; to close the door, return the handle to an open (9 o'clock) position and push in to engage the latch while turning the handle counterclockwise to the closed (6 o'clock) position. To open the ash door, lift up the handle and pull out. Close the door by pushing in and pushing the handle all the way down. To open the top load door move the wooden knob located on the left side of the stove front and upward until it locks the top open.

If the latch in either of your Exception doors needs adjustment, follow the instructions given in the Maintenance section.

All doors must be closed while the stove is in normal operation, and the gaskets routinely examined for wear and replaced when necessary. The fuel door may be left open and the opening covered with a screen when operating as a fireplace. Good door seals are important for maintaining control of the stove. Operating the stove with the ash door open, or with a door inadequately sealed, could create a serious overfiring condition (discussed later in this section).

### NEVER OPERATE WITH MORE THAN ONE DOOR OPEN AT A TIME

The glass used in your Exception is manufactured to exact standards to withstand the high heat of the fire, but like all glass, it must be treated with common sense and care. Never abuse the glass by slamming the door shut or striking the glass with a heavy object. If the glass is broken or damaged, do not operate the stove until it has been replaced (See instructions in the Maintenance section.)

### Grates

The Harman Exception's unique grate system consists of two flat bottom grates, and two front andirons. The bottom grates have slots which allow the ash to fall into the ash pan by passing a poker back and forth across the grates. The andirons keep the fuel from coming in direct contact with the glass, and keep hot coals and embers from spilling out while reloading. Never build a fire directly against the glass.

Andiron extensions (included with each stove) clip onto the fixed andirons and serve to protect the glass when top loading is used as the primary loading method. The extensions can be clipped on the outside or inside of the andirons.

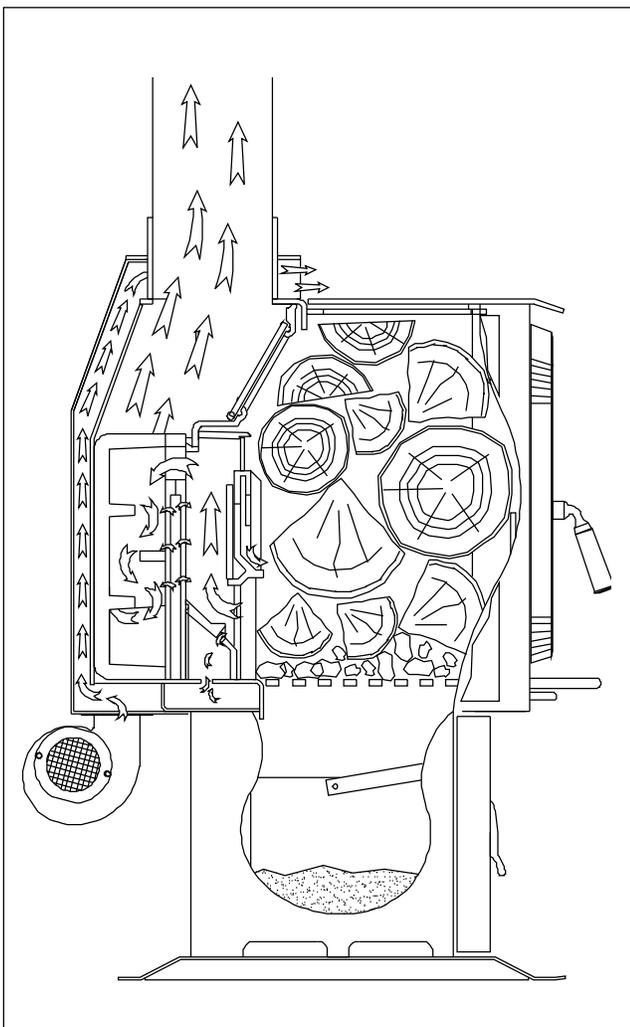
The grates and andirons must remain in place at all times. Do not tamper with or change the configuration of this grate system.

# Operation

## The Combustion Process

Combustion in your Harman Exception is controlled very precisely. During a wood fire, primary combustion air enters the bottom of the stove, is directed up to the top of the load door and then down past the glass, finally entering the combustion chamber. Secondary combustion air enters the bottom of the stove and is delivered directly to the afterburner behind the firebox, where it provides the additional oxygen required for clean burning.

During combustion, burning proceeds through several stages - an initial evaporation stage, where moisture is released from the wood; a stage where volatile gases containing much of the wood's heating capacity are released and burned; and a charcoal stage, where the remaining charcoal burns to release the additional heat available. What is left after this final stage is ash. Within the firebox, two or more of these stages are generally occurring at once.



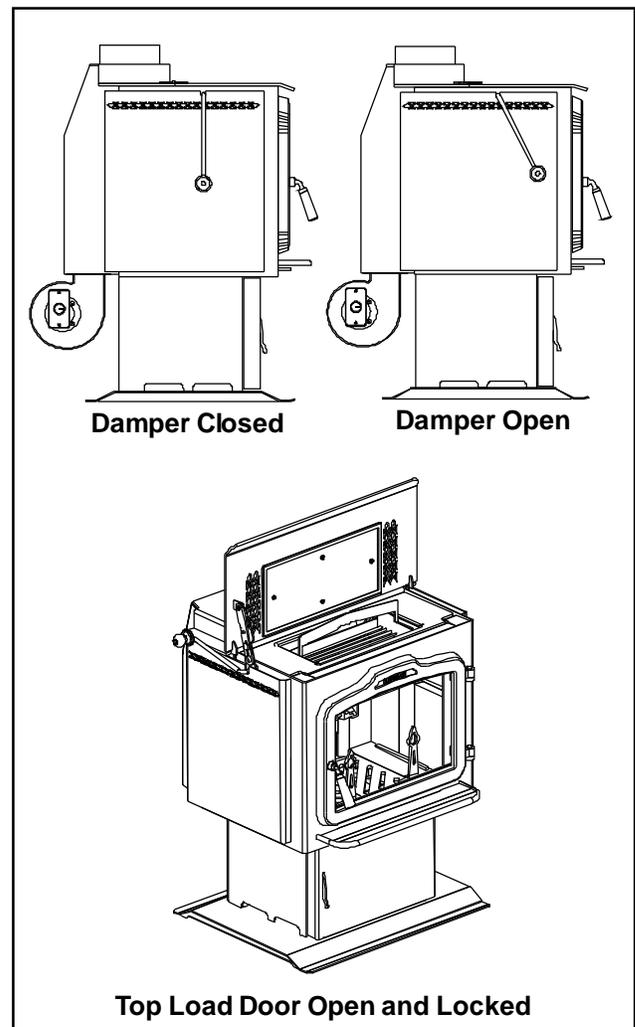
## Controls

Two important controls - the top loading door handle and the air control lever regulate the operation and output of the stove.

**Top loading door handle/damper interlock.** The top loading door handle is linked to the bypass damper and serves two purposes. Move the handle forward one position (approximately 3") and the handle automatically opens the bypass damper. In this mode of operation the combustion gases go directly from the main combustion chamber to the flue collar and exit into the chimney.

Continue moving and lifting the handle and it opens the top loading door.

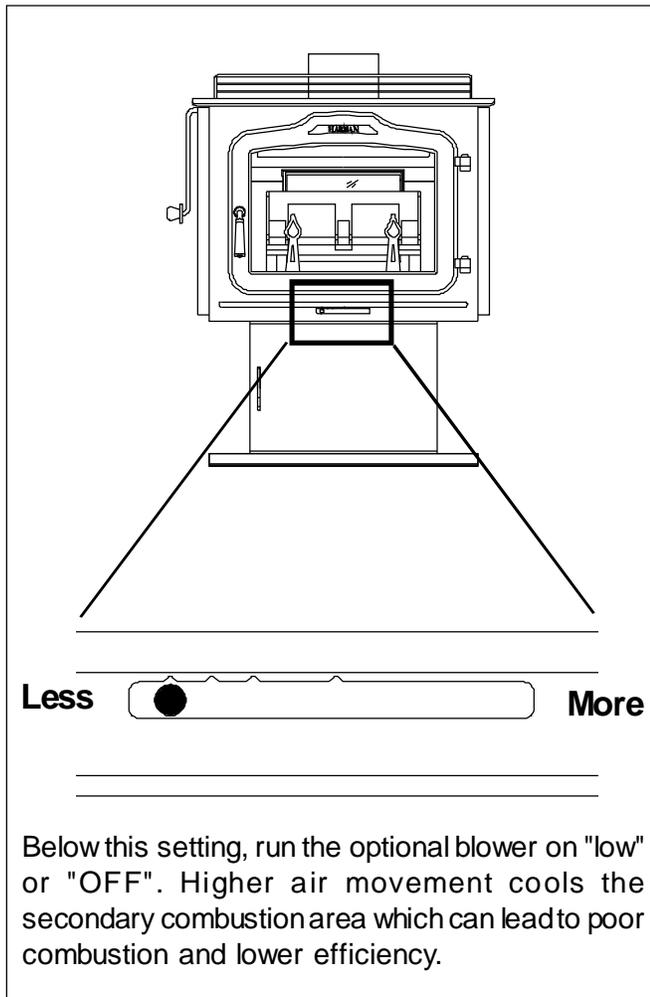
**NOTE: The bypass damper must be open for smokeless loading.** This is particularly important to remember when loading wood through the front door since the front door and the bypass damper are not interlocked in the same way that the top loading door is interlocked with the bypass damper. Open the bypass damper by moving the top door handle forward one position before opening the loading door.



# Operation

## Air Control

The air control lever is located directly below the ash lip of the stove. Using this lever you will be able to vary the amount of air delivered to the fire, creating a range of heat outputs. The low heat output setting is to the left, and high is to the far right. Do not, under any circumstances, alter the configuration or operation of the air control lever.



Below this setting, run the optional blower on "low" or "OFF". Higher air movement cools the secondary combustion area which can lead to poor combustion and lower efficiency.

## Building and Maintaining the Fire

The Harman Exception was tested with the fuel door open and closed. If you operate under normal conditions keep door closed.

Set the air control lever at the maximum heat output setting, all the way to the right. Open the bypass damper by moving the top loading handle forward one position (approximately 3"). The convection blower, if installed, should be off for the first five minutes after a reload.

**Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this heater. Keep all such liquids well away from the heater while it is in use.**

Build a bed of paper and kindling; place several 1" - 2" (25 mm - 50 mm) split pieces of dry wood on top, followed by a few 2" - 3" (50 mm - 80 mm) split pieces. Ignite the paper and close the door.

Allow the fire to burn until a good charcoal bed, 2" - 3" (50 mm - 80 mm) is formed; close the bypass damper by pushing the top loading handle all the way back until it locks closed. (You may need to leave the load door open a crack to get the blaze going properly, but never leave the stove unattended with door open.) Add more wood to create a deeper charcoal base (3" - 4", or 80 mm - 100 mm thick); remember to open the bypass damper if you are loading from the front. This will allow the exhaust gases to pass directly into the flue outlet and reduce smoke spillage during refueling.

Once the charcoal bed is established you may add a full load of dry wood. After adding the fuel, leave the damper open and the air setting at maximum for 5 to 15 minutes; close the damper and allow the air setting to remain on high for an additional 5 to 10 minutes. Then adjust the air lever and blower speed for the desired heat output.

## Reloading

Once you have prepared and maintained a thick charcoal bed, you should be able to reload the stove, allow some open damper burning at the maximum air setting, close the damper and reset the air control in about five minutes.

## Blower

To regulate the speed of the optional convection blower, adjust the control from low to high by turning the knob located on the blower. The blower speed should be matched to the air control lever setting.

When the air setting is low, the blower should always be at the minimum setting (corresponding to a blower speed of 750 RPM.) At higher settings, above first notch on the air control, the blower may be set to your desired comfort level. Be sure that the blower cord does not run under, over, above or in front of the stove.

# Operation

As you begin to operate your stove at higher temperatures, you will notice a “hot” or unpleasant smell; this is just the paint going through the curing process, and will disappear after a few fires.

The following guidelines for air settings can be used for woodburning; as you become familiar with your stove, you will know which settings best heat your home.

- Minimum burn rate - air control fully to left.
- Medium low burn rate - air control moved 1" to right.
- High burn rate - air control fully to the right.

Note: At minimum burn rates the glass may get dirty but will clean off again at higher burn rates.

## Afterburner Viewport

This is a small ceramic window in the back of the firebox. This window allows you to see the Afterburner Combustion System in action. This glass may smoke up under some conditions but will burn off again. It is OK if this glass is not totally clean.

## Removing Ashes

Some ash is good for proper burning. Too much ash can cause problems.

Never let the ashes in the firebox build up to over 2" in depth. Remove ashes periodically by raking a poker across the grates. Excessive ash build-up can prevent proper venting of exhaust gases.

Do not allow the ash pan to overflow. This can cause damage to the grate. Empty the ash pan when you see it getting close to full. (Remember to close ash door while emptying the ash pan.)

## Disposal of Ashes

The Exception was designed to provide access to the ashpan without the need for opening the main door. Before opening the ash door and removing the ashpan, open the bypass damper. Wearing heavy protective gloves, open the ash door and remove the ashpan by pulling it forward by the handle. Close the ash door before taking the ashes outside for safe disposal.

A good time to empty the ashpan is before loading. This ensures that the ashes will be cold and safer to handle than directly after poking the ashes down or tending the fire.

**WARNING: Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.**

**Never use the ash disposal container for other trash. Wood ash can be added to your garden or compost.**

## Operating as a Fireplace

The TL200 is tested and approved to be burned with the front load door open and the damper open. In this mode of operation you get a true fire sound as well as appearance. Due to the crackling and popping of burning wood it is necessary to place the optional screen over the door opening. This prevents sparks from entering the room just like a screen over a fireplace.

### CAUTION

**The stove is hot while in operation. Keep children, clothing and furniture away. Contact may cause skin burns.**

## Overfiring

Avoid overfiring your stove, a potentially hazardous situation which can lead to overheating of combustible materials, damage to the stove, and in extreme cases, cause a fire. Overfiring is caused by: 1. Too much air flowing through the stove too quickly. 2. Improper positioning of the primary air control level too far to the right. 3. Inadvertently leaving the damper open or 4. Not keeping up with routine maintenance, such as checking door gaskets for wear.

Overfiring results in excessive fuel consumption, and may cause parts of the stove or chimney connector to glow red. If you notice signs of overfiring, reduce the air supply to the fire, and review the Maintenance section in this manual.

**Never leave the stove unattended if either the ash or load door is open. Overfiring may result.**

In the event of a chimney fire, call your local fire department; make sure everyone is safely out of the house. Reduce the air intake of the stove as much as possible using the air control lever; close the bypass damper to further restrict air flow. Do not throw water on the fire; this can cause stove damage and create an even more dangerous situation. Have your chimney professionally cleaned and inspected before resuming burning in your stove.

# Maintenance

Like all fine equipment, your Exception requires some routine maintenance and inspection. Follow the guidelines in this section to guarantee safe, efficient operation.

## The Stove

### Surface

The stove's exterior surface should be dusted periodically with a soft cloth. For more thorough cleaning, wait until the stove is cool before using a damp cloth to clean any blemishes.

## The Door

If you have a gold plated front door it should **never** be buffed or polished. Abrasive cleaners and metal polishes will remove the plating and therefore should never be used. If the door needs to be cleaned, wait until the stove is completely cool, then use a sponge, soap and water to gently remove dirt and stains. Before relighting the stove, remove all soap residue and wipe dry.

## Controls

To avoid a rust build-up on the inner surfaces of the controls, work the controls back and forth several times, during the summer, or any prolonged period when you are not using your stove.

## The Fire Chamber

The inside of the fire chamber should be examined for damage to the refractory lining material, grates, casting or Afterburner glass. If any bricks have been damaged, replace them with Harman Stove Company replacement parts.

## Glass - Replacement

If the stove's glass is cracked or broken, you must replace it before operating your stove. Remove pieces carefully. Replace glass only with Harman Stove Company replacement glass panels; do not use substitutes.

To replace the glass panel, you will need to remove the door. To do this, open the door, lift it straight up and place it on a soft surface.

Carefully remove damaged glass, gasket material, and hold down clips (set aside).

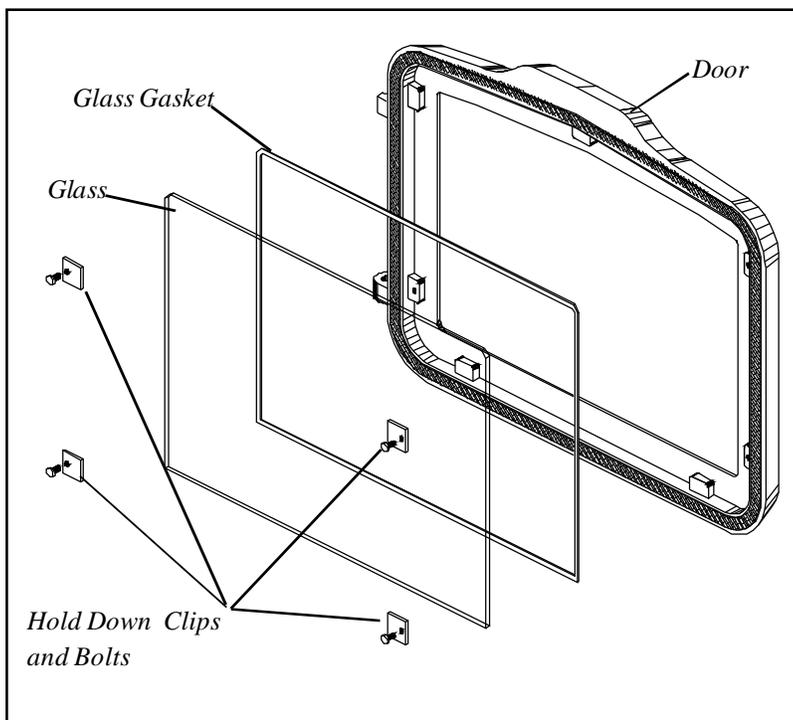
Referring to the diagram, note how the various components of the door system fit together. Lay the load door face down on the soft surface, and install the self adhesive 1/4" gasket material around the front face of the glass. Note: this glass has a special IR coating on one side. This coating must be to the **outside** of the stove. The coated side has a label on it. Do not remove the label before installing the glass. If label is missing, check for continuity.

Set the glass pane and gasket gently onto the door. Install the hold down clips and tighten with bolts as shown. Make sure there are no lumps in the gasket and tighten the screws at an even amount. Reinstall door on stove.

## Glass - Cleaning

Sometimes it will be necessary to clean accumulated ash from the glass surface; allowing this ash to remain on the glass for long periods can result in "etching" due to the acidity of the ash. The creosote which accumulates on the glass should burn off during your hot fires.

Never clean the glass while it is hot, and do *not* use abrasive substances. Wash the surface with cool water, and rinse thoroughly. You may wish to use a non-abrasive cleaner specifically designed for use on stove glass. In any case, dry thoroughly before relighting your stove.



# Maintenance

## Gaskets

Gaskets are used at strategic positions when building the Harman Exception for controlling the path that incoming and outgoing air and gases take through the stove. You must check these gaskets from time to time, and replace them when necessary. The gaskets are made of fiberglass of different sizes (obtainable from Harman Stove Company) and are fixed in place with a high temperature stove gasket cement. To change a gasket, first remove the worn fiberglass and clean the area with a wire brush. Also clean any other surfaces that come into contact with the gasket. Place a small bead of cement in the area under the gasket, then press new gasket material into the channel; do not overlap the ends of the gasket. Seat the gasket firmly by applying pressure when possible; for example, after changing the door gasket, close the door. Allow the cement to dry before using your stove.

### ***Gaskets are located:***

- On the doors to provide airtight closure.
- Between the damper and the damper frame.

## Handle

The handle on the front door of your Exception is attached to a threaded shaft. After a period of time, you may find that the front door does not close as firmly as when your stove was new. This is due to a natural compression of the gaskets. To tighten the seal, open the door and rotate the handle one full turn counterclockwise or bend the latch plate on the stove.

## Blower

The optional blower on your Harman Exception stove requires very little maintenance. You should, however, keep the air inlet and the motor free of dust and dirt.

## The Chimney System

### Creosote

When wood is burned slowly, it produces tar and other organic vapors, as well as soot, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue (associated with a slow burning fire). As a result, creosote accumulates on the flue lining. When ignited, this creosote can result in an extremely hot fire.

The Afterburner on the Exception cuts creosote to almost nothing when properly burned with dry seasoned wood.

The chimney should be inspected at least once every two months during the heating season to see if any creosote build-up has occurred. Checking your chimney and chimney connector more frequently, especially while you are getting used to your stove, is recommended. To inspect this system, let the stove cool. Using a flashlight and mirror, check the interior of the chimney connector, and the chimney itself. If a significant layer of creosote or soot as accumulated ( $1/8$ " or 3 mm) it should be removed to reduce the risk of a chimney fire.

To clean deposits from the surface of the connector, use a stiff wire brush after dismantling the connector assembly. To clean the chimney, use a specially designed brush sized to fit your particular flue opening, or call an established chimney cleaning service.

At the end of the heating season, perform a thorough examination of your chimney system, and have it repaired if necessary.

# Installation

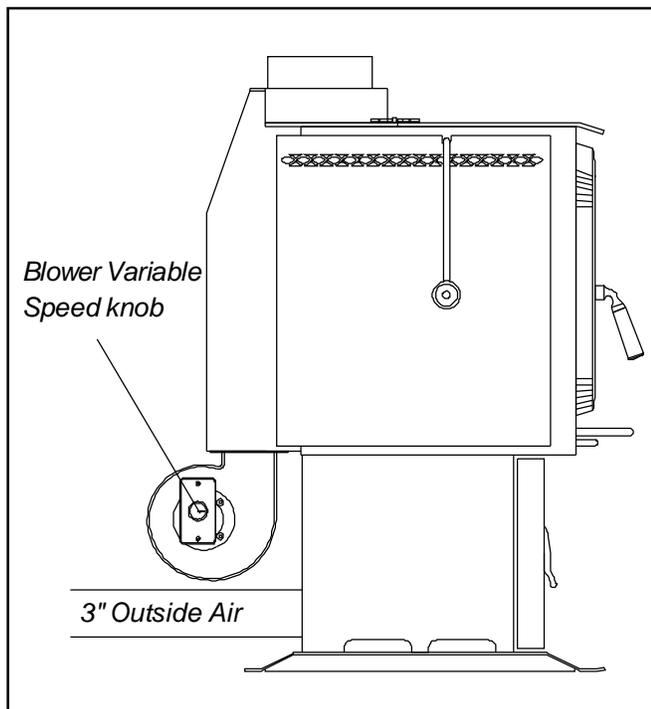
## DO NOT INSTALL IN A SLEEPING ROOM

### Assembly

#### Blower (optional)

Bolt the mounting plate to the bottom rear of the stove with four 1/4-20 bolts. Put the blower in place on the bracket and bolt fast. Tighten the bolts, but do not over-tighten.

The power cord for the blower must be connected to a grounded outlet, and may not be routed above, under, over or around the stove itself.



### Outside Air (optional)

The Exception is designed to accommodate the use of outside air introduced directly to the stove. The opening is located at the back of the stove behind the pedestal. An outside air connector plate attaches over this opening, using two 1/4-20 x 1/2" hex head bolts.

Outside air is always required when installing the Exception in a mobile home, and is required for every installation by certain local building codes. Check with your local building inspector to find out requirements. Some signs to watch for that indicate a possible need for outside air: poor performance of other heaters or of the Exception, including smoke roll-out and odor; the disappearance of the same symptoms when a window is opened near the stove; and condensation on windows in the winter. Modern homes with tight windows and doors, vapor barriers, and particularly with exhaust systems are the most likely to require outside air.

An outside air duct less than 5' (1525 mm) long may be 3" [80mm] in diameter, and be made of masonry tile, 26 gauge (0.019)galvanized steel, or other noncombustible material; it should have a 1" (25 mm) clearance to combustibles. Systems longer than 5' (1525 mm), or containing more than two elbows, should have a 4" (100 mm) diameter duct to provide an adequate flow of combustion air. Any system must have a damper that is capable of fully closing. The air duct must terminate outside the dwelling and be screened to keep debris, birds or animals out.

# Installation

## Floor Protection

In all installations, the area under and around the stove must be protected from falling ash and live coals. *The area under a horizontal run of chimney connector must also be protected.* This protector must be of noncombustible material, and positioned as shown in the accompanying illustration. The guidelines for floor protection are: 1) completely under the stove and any horizontal runs of connector; 2) 8" (200mm) in back of the stove; 3) 8" (200 mm) to each side; 4) U.S. 16" (405 mm) in front of the doors; *Canada* 18" (450 mm) in front of the doors; 5) 2" (50 mm) to each side of any horizontal runs of chimney connector.

## Clearances

Clearance is the empty space required between the stove or chimney connector to the nearest combustible surface or object, such as walls, ceilings, floors, or furniture. Clearance distances may only be reduced by using methods approved by either the CAN/CSA B365 standard (Canada) or NFPA 211 (U.S.) Contact your building authority for information if you are interested in reducing clearance distances other than those presented here.

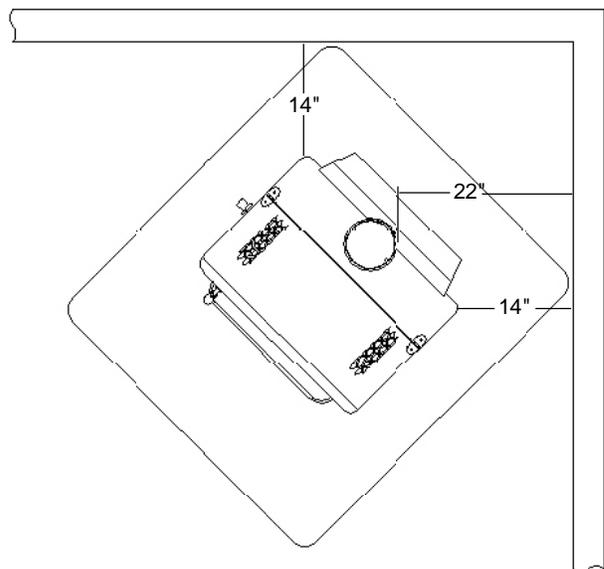
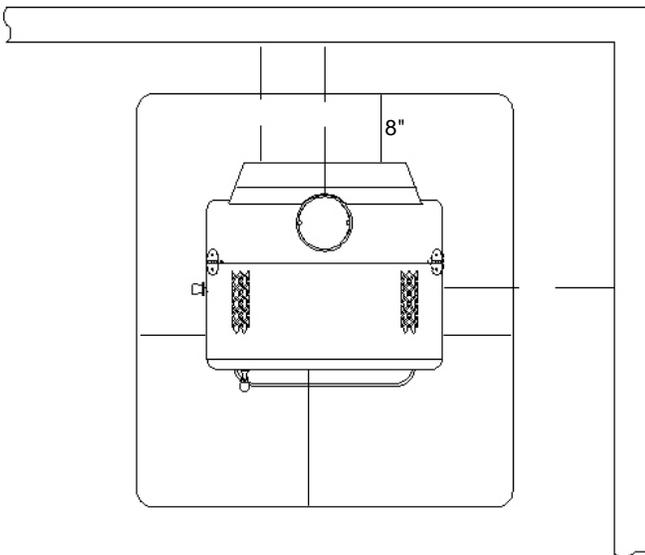
## Parallel versus Corner Installations

A parallel installation is one in which the back and sides of the stove are parallel to the walls behind and to the side of the stove. A corner installation is one in which the back of the stove is positioned diagonally across a corner of the room. Each installation requires its own set of clearances.

For parallel installations, the required clearance distances from the stove are: 1) to the side wall, 20" (450mm); 2) to the back wall, 14" (360 mm). From the chimney connector to the wall, 18" (360 mm) and to the ceiling, 18" (450 mm). NOTE: For a vertical chimney connector in a parallel installation the distance of the connector to the side wall must be 32" (720 mm), due to the required side clearance of the stove itself. Fireplace installations must meet these same clearance requirements; specifically follow these guidelines for mantel and trim clearances.

For corner installations, the clearance distances from the stove are 14" (360 mm) from each corner of the stove measured straight back to the nearest combustible material, and 22" (360 mm) from the chimney connector to the walls.

From the front of the stove, clearance to combustible materials such as furniture, curtains, fuel, etc., is: 48" (1215 mm) in the U.S. and 60" (1525 mm) in *Canada*.



## Door Assembly/Installation Tips

### Door Glass

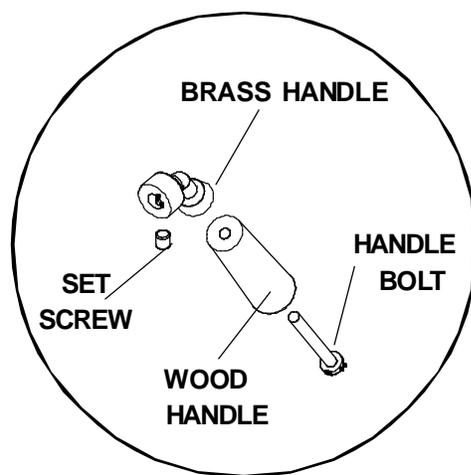
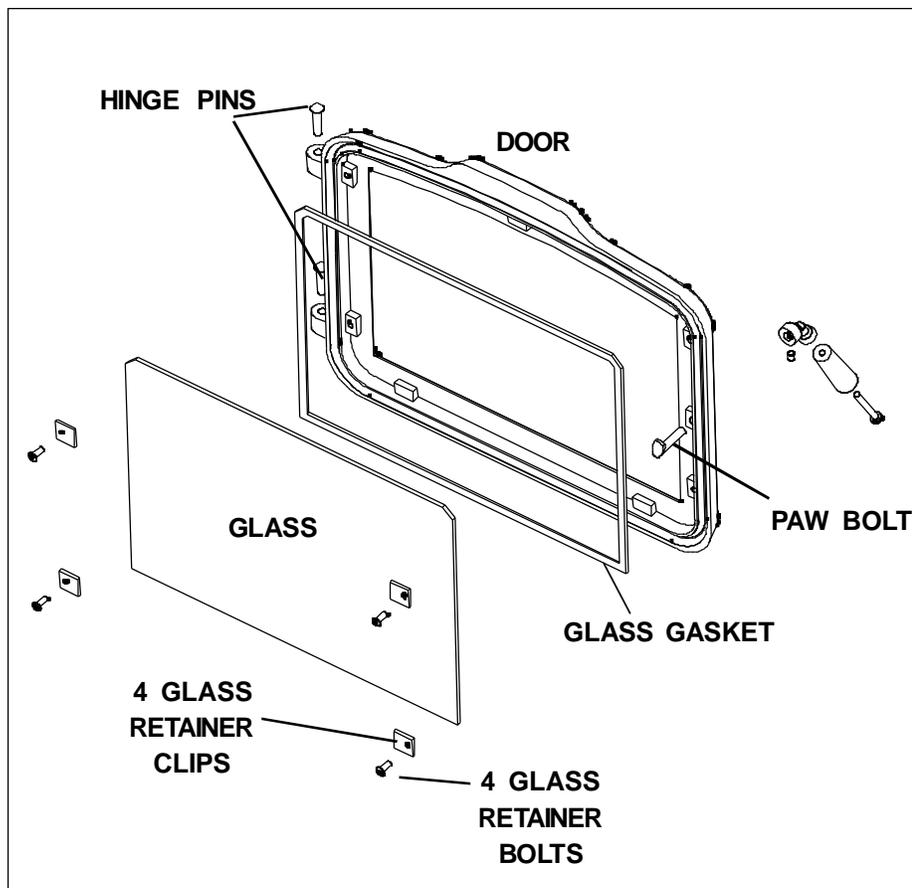
- Be sure that the door glass is installed in the door with the label, located on the glass, on the external side of the door.
- Rope the glass carefully to insure proper sealing.
- Apply the rope exactly along the edge of the external face of the glass, not overhanging or pressed too far in from the edge.
- Make sharp 90° turns at the corners.
- Overlap the ends of the rope at the upper left or right corners.

### Glass Retainer Clips

- Use the glass retainer clips and screws supplied in the door kit.
- Use a 1/8" Allen wrench to tighten the glass clips to cast door with 10-24 x 3/8" screws supplied.

### Paw Bolt

- The paw bolt should be turned into the door from the inside approximately 14 turns.
- With the set screw removed, turn the brass elbow onto the paw bolt approximately 5 turns, or until a 1/16" clearance is achieved between the elbow and the door face (make sure to stop on the flat spot of the paw bolt).
- The set screw on the brass elbow must be aligned to contact the flat spot on the paw bolt, then tighten using a 5/32" Allen wrench.
- After attaching the door handle, close and latch the door by turning the handle to the six o'clock position. During this process observe to see that the door rope is being compressed properly.
- If it does not compress, loosen the set screw and turn the paw bolt one additional turn into the door. Repeat as required to ensure a tight seal.



## Exception Linkage Installation



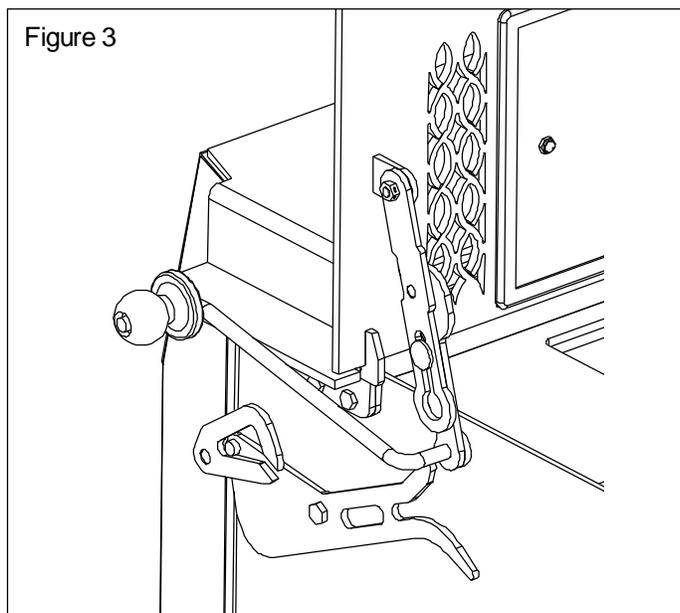
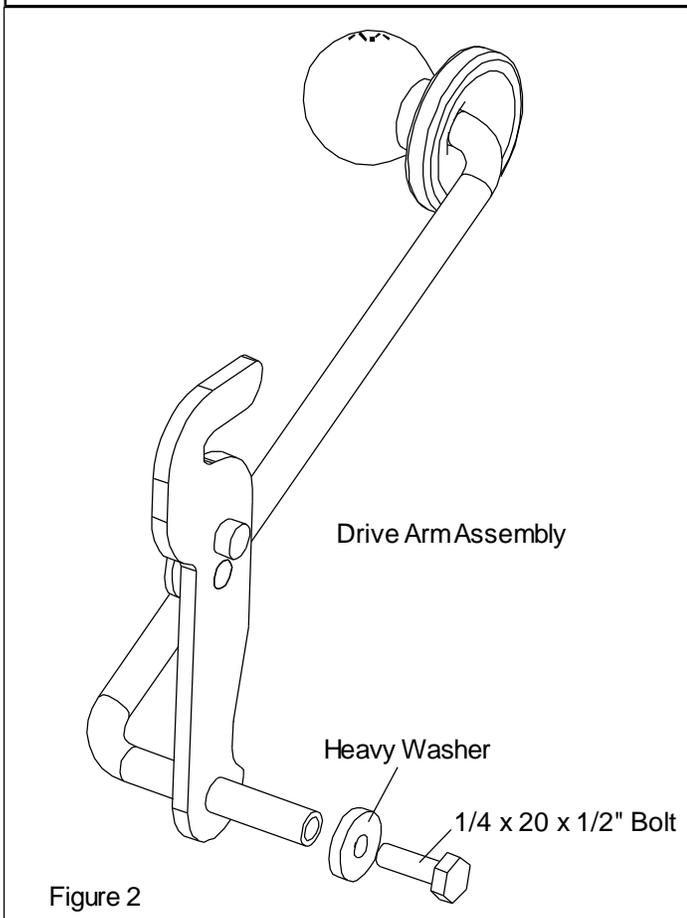
### Step 1: Remove left side shield

The side shield has tabs on it that latch into holes on the side of the stove. This makes removing the side shield easy.

- Lift up on the side shield then pull out.

### Step 2: Install the drive arm

- With left hand, slide new drive arm through hole in side of stove. With right hand, take 1/4 x 20 grade 8 bolt along with washer and insert through hole from inside of stove. Tighten snugly using a 7/16" wrench. (Shown in Fig. 2)



## Exception Linkage Installation, cont'd



Figure 4

### Step 3: Install the top lift arm

- Tighten the 1/4-20 x 5/8 button head allen bolt. Bolt into the tab on the underside of the top lid. This bolt can be tightened fully. (See Fig. 6 & 7)
- Slide the top lift arm onto the shoulder pin on the drive arm. Check positioning of top lift arm. (See Fig. 5)
- Using the 1/4-20 lock nut, secure the top lift arm to the lid. NOTE: The top lift arm needs to move on the bolt. Do not tighten the lock nut. You can turn it snug then back off 1/2 turn.
- Operate the complete linkage using the drive arm handle. You'll know if your bolts are too loose or too tight.

### Step 4: Re-attach left side shield.

- Place side shield under top load door arm
- Place tabs in slots and press down to lock into position.

### Things to Check

- Make sure the top load door (lid) is centered from left to right. It is possible for it to get bumped off center during shipping and installation. This lid can be recentered by tapping in the proper direction with a block of wood.
- In extreme cases the lift lug (Fig 7) can get bent. Check to see that it is 90° from the lid. If adjustment is necessary the lug can be straightened with a large adjustable wrench.



Figure 5

Shoulder Pin

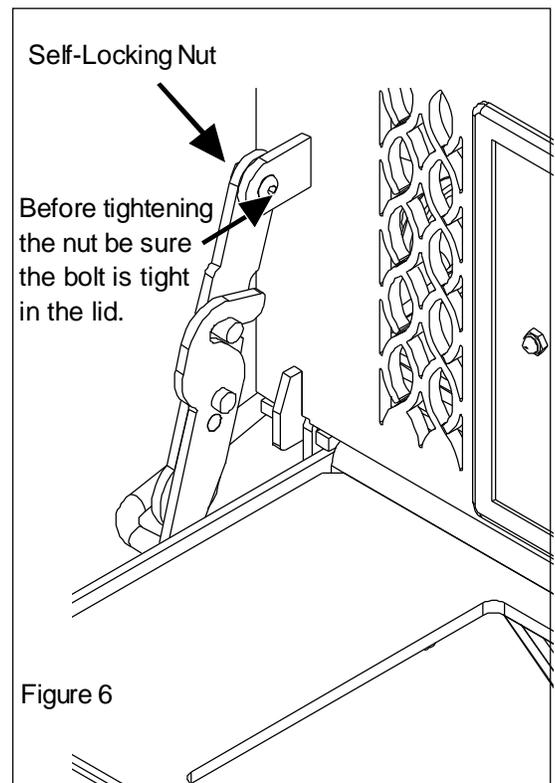


Figure 6

# Exception Linkage Installation, cont'd

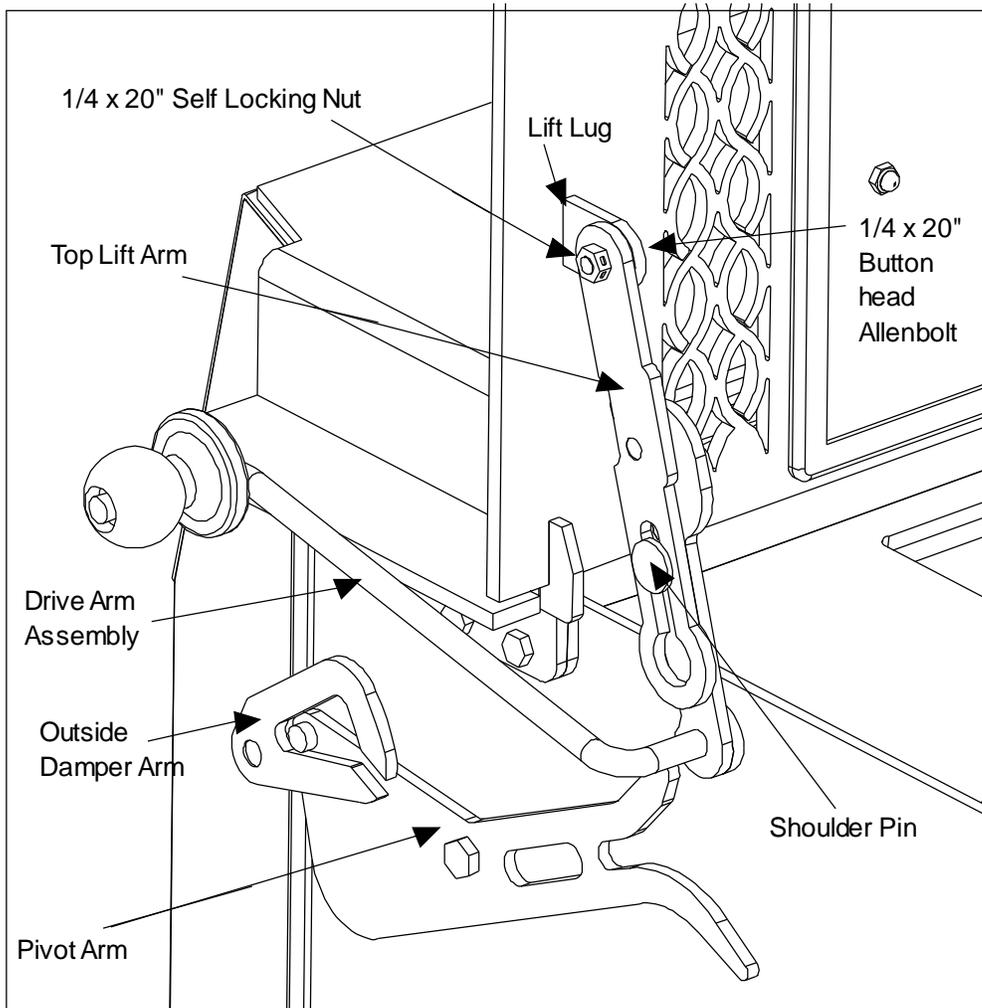


Figure 7

# Venting

## Chimney Connectors and Chimneys

### Draft

Draft is widely misunderstood. It is important that you, the stove operator, realize that draft is a variable *effect*, not a given quantity. Stoves and chimneys do not *have* draft, yet draft is the key to your stove's performance.

Draft is a *force*, produced by an operating stove and the chimney to which it is attached. It is created by hot gases rising up the chimney, creating a pressure difference between the inside of your home and the outside air. It continually moves fresh combustion air into the stove, and hot exhaust gases out of the stove; without this constant flow, the fire will go out.

Other factors, such as barometric pressure, winds, the air tightness of the home, the total inside chimney volume, chimney height and the presence of venting devices such as exhaust fans also play a role in maintaining an adequate draft. Low barometric pressures, super insulated homes and exhaust fans can reduce draft; winds can play havoc with draft; and too large or too small a chimney volume can cause reduced draft due to the excessive cooling or not enough room to vent exhaust gases quickly. Introducing outside air directly to the stove may help remedy a low draft problem. Some signs of inadequate draft are smoking, odor, difficulty in maintaining the fire, and low heat output. Overdraft can be caused by a very tall chimney even if it is the recommended size, and can cause overfiring of your stove. Signs of an overdraft include rapid fuel consumption, inability to slow the fire, and parts of the stove or chimney connector glowing red. It is important that you follow the chimney guidelines in this manual, including size, type, and height to avoid draft problems.

Other causes of poor ventilation or draft are icing, exhaust fans, a blocked outside air inlet, and room air starvation. If your stove is sluggish and you get occasional odor, check these possibilities and increase the air flow in your home.

When installed and operated according to this manual, the Exception will produce enough hot gases to keep the chimney warm so that adequate draft is maintained throughout the burn cycle.

### Chimney Connectors

In general, following these guidelines will ensure compliance with all national and provincial codes; prior to beginning your installation, check with your local building code official to check on additional local regulations which may influence the design and placement of your venting system.

The Harman Exception may be installed with a minimum of (150 mm) 24 gauge chimney connector pipe. Size of the connector should correspond to the size of the flue collar opening. Do not use makeshift compromises. No part of the chimney connector may pass through an attic or roof space, closet or other concealed space, or through a floor or ceiling. Whenever possible, avoid passing the connector through a combustible wall; if you must, use an approved wall pass-through, described later in this section.

Assemble the connector beginning at the flue collar, with the crimped ends pointing towards the stove (to keep debris and creosote flakes inside the system). Each joint, including the one to the stove's flue collar and the one to the chimney itself should be secured with at least three sheet metal screws. Screws may be a maximum of 3 inches apart. A 1-1/4" (30 mm) overlap is required at each joint, including the flue collar attachment. No more than two 90 degree elbows should be used, and the total length of connector should not exceed 10 feet (3 m). All horizontal runs of connector must have a minimum upward slope of 1/4" (6 mm) per foot (20 mm per meter).

### Wall Pass-throughs

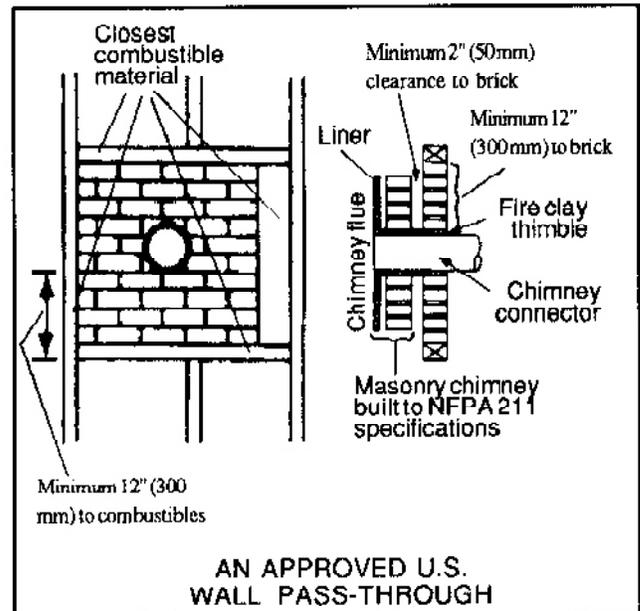
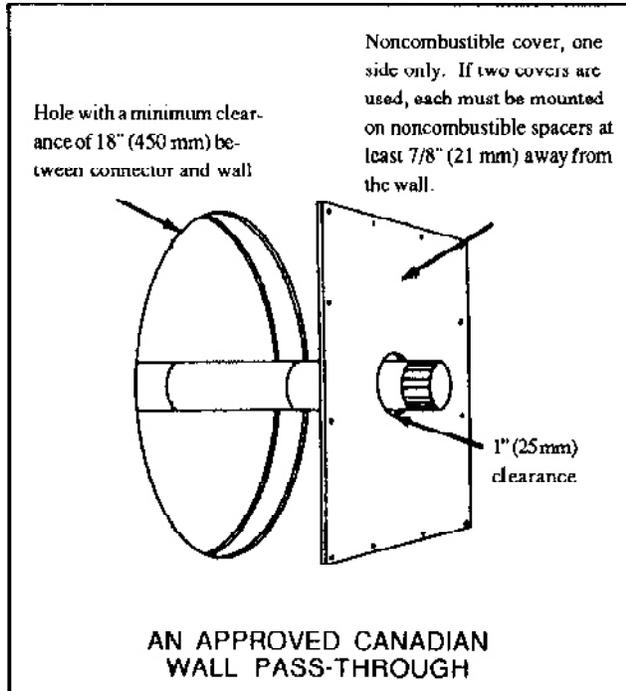
Occasionally it is necessary to pass the chimney connector through a combustible wall to reach the chimney. Depending on your local building codes, and the pertinent provincial or national codes, there are several choices for accomplishing this safely. Before beginning your installation, contact local officials, and also the chimney connector and chimney manufacturer for specific requirements.

*Canada.* Three methods are approved by the Canadian Standards Association. The diagram shows one method requiring an 18" (450 mm) air space between the connector and the wall. It allows use of one or two covers as described in the diagram. The two other methods are described in detail in the current issue of CAN/CSA B365, the national standard.

*United States* In the U.S., the national code is NFPA 211. While many localities adopt this standard, be sure to check with local authorities before beginning your installation.

The NFPA (National Fire Protection Association) permits four methods for passing through a combustible wall. A commonly used method to pass through a wall directly to a masonry chimney is to clear a minimum 12" (300 mm) around the entire chimney connector, and fill it with brick masonry which is at least 3.5" (90 mm) thick. A fireclay liner, minimum 3/8" (9 mm) wall thickness must run through the brick wall to the chimney liner (but not beyond the inner surface of the liner). It must be cemented in place with refractory cement. This method is illustrated. For details on the other three options, refer to the most recent edition of the NFPA 211 code.

## Venting



### The Chimney

The Exception must be installed into a chimney approved for use with solid-fuel appliances. In the U.S., the Exception must be connected to (1) a prefabricated chimney complying with the requirements for Type HT chimneys in the Standard for Chimneys, Factory-Built, Residential Type and Building Heating Appliances, UL 103, or (2) a code-approved masonry chimney with a flue liner. In Canada, the Exception is listed for use with prefabricated chimneys tested and listed to the high temperature (650 degrees C) chimney standard, ULC S-629, or with a code approved masonry chimney. For mobile homes, the Exception must only be installed with prefabricated chimney systems, including the installation components, tested to either UL 103 or ULC S-629 which have been approved for use in mobile homes; the diameter should match the diameter of the flue collar opening.

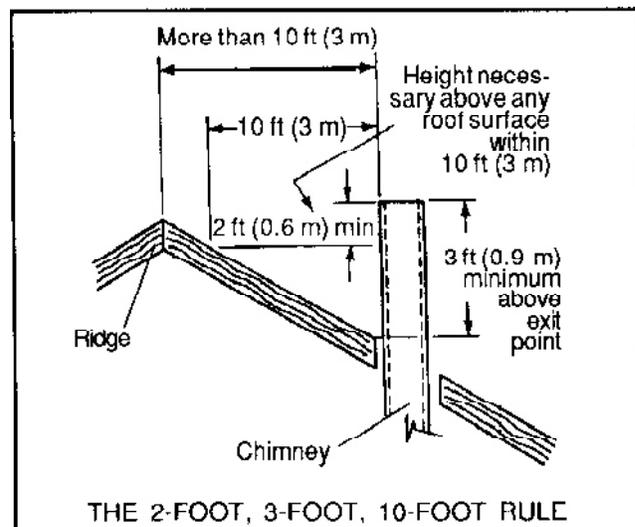
The minimum recommended height for any chimney is 16 ft (4.8 m) above flue collar height. For non-mobile home installations, a round flue (either masonry or approved prefabricated), of either 6" (150 mm), 7" (180 mm) or 8" (200 mm) may be used. For square or rectangular masonry chimneys, nominal sizes of 8" x 8" or 8" x 12" (200 mm x 200 mm, 200 mm x 300 mm) may be used.

Codes require that solid-fuel chimneys extend 3 ft (0.9 m) above the point at which they exit from the roof, provided that no part of any structure is within the top of the chimney, then the chimney must extend 2 ft (6 m)

above the highest point with the 10 ft (3 m) radius top height. If there is not ten feet of clearance from the top of the chimney, then the chimney must extend 2 ft (6m) above the highest point within the 10 ft (3m) radius.

**Do not connect this unit to a chimney flue servicing another appliance.**

NOTE: The restriction of not venting more than one appliance to the same flue applies to the U.S. specifically. While it is not recommended that you use the same chimney for more than one appliance, in *Canada* certain exceptions may be made. Be sure to contact your building code inspection official to see if this option is allowed in your area, and to find out the specific requirements for such an installation.



## Venting

### Existing Masonry Chimneys

If you plan on using a pre-existing masonry chimney, have it thoroughly inspected and cleaned. Any faults which make the chimney unsafe and unusable must be repaired prior to use. These can include improper height, structural defects, blockages, inadequate clearance to combustibles, unsealed openings into other rooms of the house, signs of creosote or smoke leakage, a loose or absent clean-out door, or absence of a liner.

**Do not connect to any air distribution duct or system.**

### Venting to a Masonry Chimney

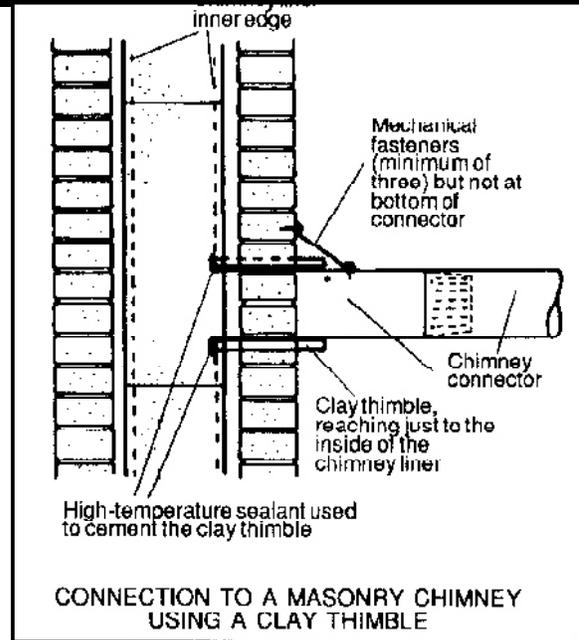
When connecting to a masonry chimney, several provisions are standard. First, whether the chimney connector is vented to the chimney through a thimble or a breech pipe, neither must pass beyond the inner surface of the chimney liner, and both must be firmly cemented in place with refractory cement. (A thimble is a masonry pipe which is inserted through the chimney wall, and is frequently the preferred method; a breech pipe is a piece of steel pipe used the same way.) In Canada, a breech pipe has ridges or protrusions to lock it firmly into the refractory cement. In either case, the chimney connector vents to the chimney through the thimble or breech pipe.

Using a thimble, the connector slides completely inside the masonry to the inner edge of the flue liner, and may be easily removed for chimney and connector inspection. A breech pipe must extend at least 2" (50 mm) into the room, so the connector can be attached with sheetmetal screws.

### Venting to a Masonry Fireplace Chimney

In some situations, a code compliant chimney originally used for a masonry fireplace may be used to install your Exception. In addition to the requirements found in the previous paragraphs, it is important to be aware that all clearances must be met, including those from the chimney connector to combustibles — 18" (360 mm) to sides and 18" (450 mm) to ceiling. Do not forget to include floor protection in your plans. (See Clearances and Floor Protection in this section.) Since many fireplaces have exposed wooden mantels and trim, pay special attention to the clearances necessary to these materials.

If your fireplace chimney is behind a combustible wall, you must use an approved wall pass-through system to gain access to the masonry chimney. The chimney connector must enter the chimney at a place where it is lined, and the fireplace must be made inoperable. For example, you might remove the damper, replacing it with a secure, airtight, noncombustible seal (removable for inspection); this also satisfies the requirement that no room air must be allowed to enter the chimney.



### Installing to a Prefabricated Chimney

When venting your Exception using a prefabricated chimney, be sure to contact local building code authorities, and to follow the manufacturer's instructions *exactly*. Use only the manufacturer's parts; do not use makeshift installation techniques. All prefabricated chimneys must be tested to either the U.S. or Canadian high-temperature standards, UL 103 or ULC-629.

## Venting - Mobile Homes

### Mobile Home Installations

Mobile home installations must use approved factory-built chimneys tested and listed for this specific use, to either of the high temperature standards, ULC S-629 or UL 103. Any components used to install the chimney must be listed for this use and supplied by the chimney manufacturer. Do not substitute makeshift compromises. In Canada, chimney connectors must be tested and listed to the standard in CAN/ULC-641-M87.

In addition to meeting the size and height requirements detailed in the Chimney section, the chimney must also be removable to the roof line area in order to allow for transport. When designing your system, consult with the chimney dealer to ensure that your system meets this requirement, and ask for specific details on how to remove it.

Follow all clearances, floor protection and other general guidelines in the Installation section when installing your Harman Exception in your mobile home.

#### Other important Mobile Home guidelines:

- The stove must be securely attached to the mobile home floor.
- All stoves installed in mobile homes must have a direct outside air connection. (See Assembly Instructions.)
- A vapor barrier must be in place where the approved chimney system exits the mobile home.

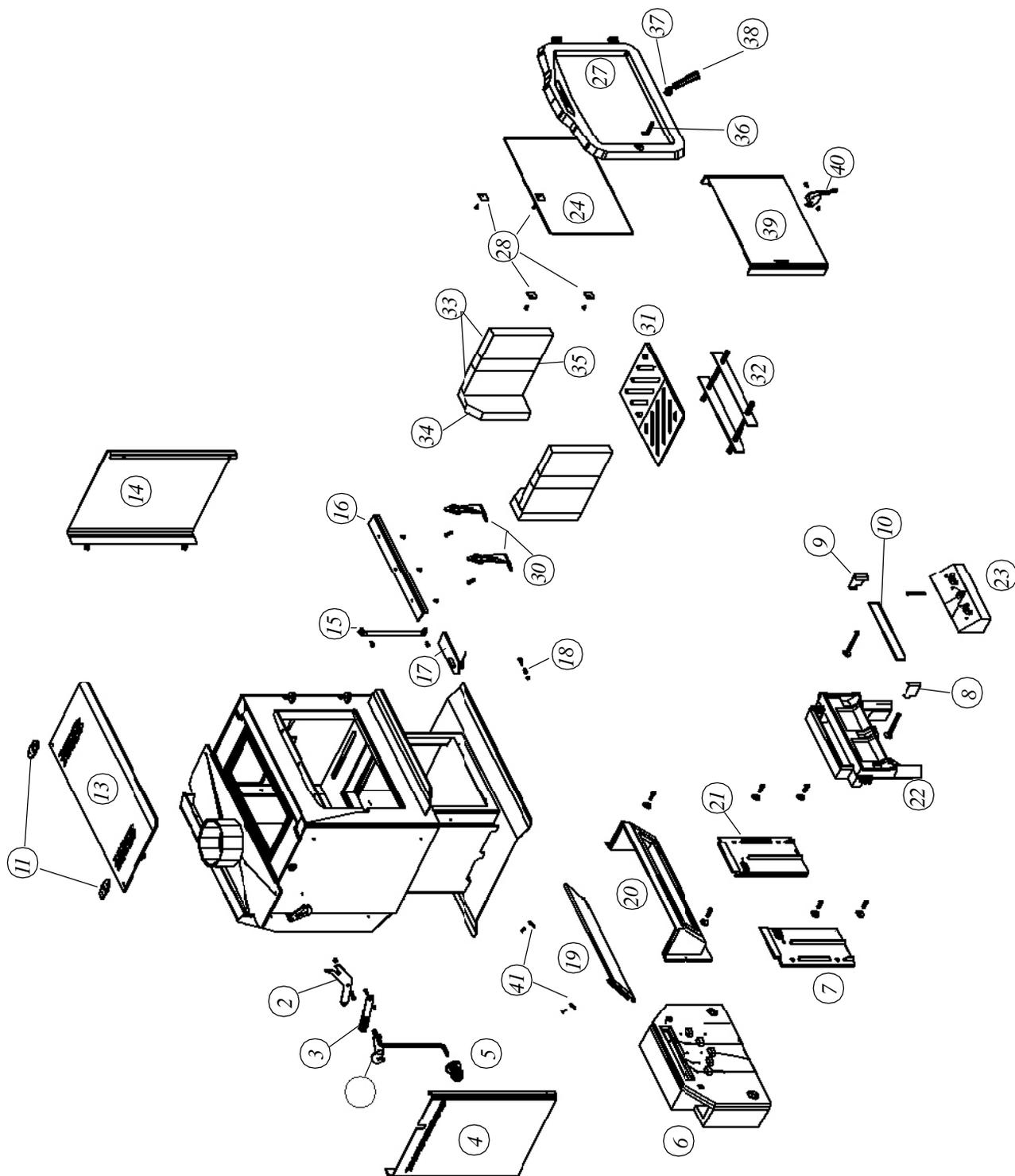
**Caution: The structural integrity of the mobile home floor, walls, and ceiling/roof must be maintained.**

NOTE: When solid fuels are burned completely, they produce water and carbon dioxide. However, in long slow burns, a substantial amount of carbon monoxide may be produced. If allowed to build up, carbon monoxide (which is odorless) can prove fatally poisonous. Proper ventilation and draft will prevent this from happening. If you smell smoke, turn up the air control lever setting, and thoroughly ventilate your dwelling. During future burns, be careful not to overload the stove with fuel, so you will not be tempted to constantly operate at a low air control setting.

## Exception Parts List

1.	1-10-08074	Damper linkage weldment
2.	1-10-08075	Damper pivot arm weldment
3.	1-10-08127	Top lift arm weldment
4.	2-00-05204	Left side shield
5.	3-40-05228	Wooden knob
6.	3-40-05171	Ceramic fiber afterburner
7.	1-10-08058	Left side plate assy.
8.	2-00-07071-1	Left glass retainer clip
9.	2-00-07071-2	Right glass retainer clip
10.	3-40-05180	Afterburner glass
11.	4-31-08078	Brass plated hinge (2 per)
12.	2-00-04174	Hinge plate (4 per) (not shown)
13.	1-10-08076	Front top weldment
14.	2-00-05205	Right side shield
15.	1-10-08073	Ash door hinge weldment
16.	2-00-05169	Airwash extension
17.	1-10-05146	Airslide weldment
18.	3-50-05229	Latch bushing
19.	1-10-08077	Damper weldment
20.	1-10-08057	Damper frame assy.
21.	1-10-08059	Right side plate assy.
22.	1-10-08200	Afterburner hood weldment
23.	1-10-08111	Ramp assy.
24.	3-40-05174	IR glass
25.	3-44-11862	1/4" OD rope 60" (not shown)
26.	3-44-53500	1/2" door rope (66"per) (not shown)
27.	4-00-05165	Cast door-machined
28.	2-00-05202	Glass retainer clips (4 per)
29.	3-00-05165-4	Gold plated cast door (optional, same as 27)
30.	2-00-05222	Andiron (2 per)
31.	2-00-05147	Grates (2 per)
32.	1-10-08133	Grate support weldment
33.	3-40-900450125	Standard brick (4 per)
34.	4-40-08113	Angle cut brick (2 per)
35.	4-40-08115	Side cut brick (2 per)
36.	4-31-08055	Paw bolt
37.	3-40-00121	Brass elbow
38.	3-40-00122	Wooden handle
39.	1-10-08158	Ash door assy.
40.	2-00-05191	Ash door latch
41.	2-00-05226	Damper Clip (2 per)
42.	1-10-05148	Ash pan assembly (not shown)
43.	3-40-05185	Brick insulation (2 per) (not shown)
44.	2-00-05223	Andiron extension (2 per) (not shown)

# Exception (TL200) Parts



# Harman Gold Warranty

## HARMAN GOLD WARRANTY 6 YEAR TRANSFERABLE LIMITED WARRANTY (Residential)

### 1 YEAR LIMITED WARRANTY (Commercial)



Harman Stove Company warrants its products to be free from defects in material or workmanship, in normal use and service, for a period of 6 years from the date of sales invoice and for mechanical and electrical failures, in normal use and service, for a period of 3 years from the date of sales invoice.

If defective in material or workmanship, during the warranty period, Harman Stove Company will, at its option, repair or replace the product as described below.

The warranty above constitutes the entire warranty with respect to Harman Stove Company products. HARMAN STOVE COMPANY MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING "ANY" WARRANTY OF MERCHANTABILITY, OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No employee, agent, dealer, or other person is authorized to give any warranty on behalf of Harman Stove Company. This warranty does not apply if the product has been altered in any way after leaving the factory. Harman Stove Company and its agents assume no liability for "resultant damages of any kind" arising from the use of its products. In addition, the manufacturer and its warranty administrator shall be held free and harmless from liability from damage to property related to the operation, proper or improper, of the equipment.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

THESE WARRANTIES APPLY only if the device is installed and operated as recommended in the user's manual.

THESE WARRANTIES WILL NOT APPLY if abuse, accident, improper installation, negligence, or use beyond rated capacity causes damage.

HOW TO MAKE A CLAIM - Any claim under this warranty should be made to the dealer from whom this appliance was purchased. Then contact is made with manufacturer, giving the model and serial numbers, the date of purchase, your dealer's name and address, plus a simple explanation of the nature of the defect. Extra costs such as mileage and overtime are not covered. Nuisance calls are not covered by these warranties.

THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS - REPAIR AND/OR REPLACEMENT AT HARMAN STOVE COMPANY'S OPTION AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

WARRANTY EXCLUSIONS: Failure due, but not limited to, fire, lightning, acts of God, power failures and/or surges, rust, corrosion and venting problems are not covered. Damage and/or repairs including but not limited to; remote controls, filters, fuses, knobs, glass, ceramic brick panels, ceramic fiber afterburners, door packing, tile, ceramic log sets, paint, batteries or battery back-up and related duct work are not covered. Also excluded from this warranty are consumable or normal wear items including but not limited to; flame guides, grates, coal bars, afterburner hoods, fire brick, gaskets. Additional or unusual utility bills incurred due to any malfunction or defect in equipment and the labor cost of gaining access to or removal of a unit that requires special tools or equipment are not covered. Maintenance needed to keep the stove in "good operating condition" is not covered. This includes, but is not limited to, cleaning, adjustment of customer controls and customer education. Labor, materials, expenses and/or equipment needed to comply with law and/or regulations set forth by any governmental agencies are not covered.

This Warranty provides specific legal rights and the consumer may have other rights that vary from state to state.

In the event of change in ownership, the remaining portion of this warranty may be transferred to the new owner by sending the new owner information to the Harman Stove Company.

PLEASE READ THE LITERATURE BY THE MANUFACTURER FOR THE VARIOUS ACCESSORY DEVICES. THE MANUFACTURER WARRANTS THESE ACCESSORY DEVICES, NOT HARMAN STOVE COMPANY OR THEIR WARRANTY ADMINISTRATOR. FURTHERMORE, THESE ACCESSORY DEVICES MUST BE INSTALLED AND USED ACCORDING TO THE RECOMMENDATIONS OF THE MANUFACTURER.

REMEDIES - The remedies set forth herein are exclusive and the liability of seller with respect to any contract or sale or anything done in connection therewith, whether in Contract, in tort, under any warranty, or otherwise, shall not, except as herein expressly provided, exceed the price of the equipment or part of which such liability is based.

CLARIFY - The above represents the complete warranty, which is given in connection with stoves, manufactured by Harman Stove Company. No other commitments, verbal or otherwise, shall apply except by a written addendum to this warranty.